

**COUNCIL ACTION FORM**

**SUBJECT: COOLING TOWER BLOWDOWN SANITARY SEWER MODIFICATIONS**

**BACKGROUND:**

As part of the power generation process, the Power Plant uses water cooling towers to dissipate heat. Periodically the water must be discharged from the cooling tower as mineral concentrations increase due to evaporation (a process called “blowdown”). The Power Plant has a National Pollutant Discharge Elimination System (NPDES) permit to discharge the cooling tower blowdown water into the storm sewer system, which flows to the Skunk River.

In June 2017, the Electric Department received a revision to the permit for the Power Plant’s cooling tower blowdown water. The limits in the new permit require the Power Plant to either treat the water before it is discharged to the storm sewer or find another method of disposal.

City staff retained WHKS to assist with evaluating discharge options. Through this evaluation it was determined that directing the Power Plant’s cooling tower blowdown into the City’s sanitary sewer system is the preferred method of disposal. The blowdown water would then be treated at the City’s Water Pollution Control Facility. This approach would involve significantly less cost than the alternative of designing and constructing a separate discharge treatment system at the Power Plant.

On February 22, 2022, Council approved a change order to WHKS Engineering to complete the plans and specifications to make connection to the sanitary sewer. The project is now ready for bidding.

The engineer’s estimate for the modification is \$282,000. The approved FY 2021/22 budget has \$500,000 allocated for this project.

<u>Project Budget</u>	
FY 2021/22 CIP	\$ 500,000
<u>Estimated Project Expenses</u>	
Engineering Contract	
Design, bidding, and construction admin	\$ 93,045
Construction Estimate	\$ 282,000
<u>Total Estimated Expense</u>	<u>\$ 375,045</u>

**ALTERNATIVES:**

1. Approve preliminary plans and specifications for the Cooling Tower Blowdown Sanitary Sewer Modifications project, set July 27, 2022 as the due date for bids, and establish August 9, 2022 as the date of public hearing and award of contract.
2. Delay the Cooling Tower Blowdown Sanitary Sewer Modifications project.

**CITY MANAGER'S RECOMMENDED ACTION:**

The operation of the cooling towers, and subsequent blowdown discharge, are critical to the operation of the Power Plant. The direct discharge to the sanitary sewer is preferred over installing additional water treatment processes at the Power Plant.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative #1 as stated above.